The anatomical changes of the nerves consist of swelling of the connective tissue, disintegration of the myelin, and some increase in the number of the nuclei of the sheaths of Schwann. The axis cylinders become cloudy, sometimes disintegrate and entirely disappear.

If a collateral circulation is speedily established improvement, or even recovery, occurs in the nerve functions.

The muscles are less involved than the nerves. SPILLER.

250. UEBER MYELITIS ACUTA (Concerning Acute Myelitis). H. Hochhaus (Deutsche Zeitschrift für Nervenheilkunde, Vol. 15, Nos. 5 and 6, p. 395).

Acute myelitis has been believed by Oppenheim to be a rare disease, but four cases observed by Hochhaus within two years would seem to indicate that it may not be so exceedingly uncommon. The duration of the process in these four cases ranged from twenty-six days to two months and twenty-five days. The clinical course was not abnormal. The prodromal symptoms—chiefly pain in the arms and legs—were short, and in one case were absent. Paralysis developed very quickly, *i. e.*, within a few hours or two days. Death occurred from pulmonary or nephritic complication. The cause in one case was cystitis or pyelonephritis, in another it was probably acute tonsilitis. Hyperemia, perivascular cellular infiltration, and small hemorrhages were found. These changes extended throughout the cord; in one case into the brain, and in another to the medulla oblongata and pons. Swollen axis cylinders were rare, but fatty, granular cells were numerous. The neuroglia cells were in places increased in number. The gray matter escaped to a remarkable degree, except in one case. Meningitis, of different intensity, was found in all the cases, and in two cases foci of softening were found in the posterior columns. The peripheral nerves and muscles were examined in one case and found diseased. SPILLER.

251. UN CASO MORTALE DI COREA DEL SYDENHAM CON RICHERCHE BACTERIOSCOPISCHE ED ISTOLOGICHE (A Fatal Case of Sydenham's Chorea, with Bacteriological and Histological Examination). G. Daddi and R. Silvestrini (La Settimana Medica, July 1889, No. 29, pp. 337-341, and No. 30, pp. 351-353).

This case deals with an unmarried domestic, of 17 years, whose previous history had been good up to the age of 12, when her mother died of some chronic pulmonary trouble. The family history was good from a nervous and mental point of view, excepting for the fact that her brother had convulsions at the age of 4 and became hemiplegic. After the death of her mother the patient developed an eczema of the scalp, which was followed by permanent enlargement of the cervical glands. At 16 she was seized with severe pains in the right leg and the latter became swollen, especially in the neighborhood of the knee and ankle. She was not confined to her bed, and the trouble disappeared in about three weeks. After this she had another attack of eczema, which soon got well under treatment, but was followed by renewal of the pains in the right leg and by slight palpitation of the heart. Twenty days before coming under the author's observation the patient began to exhibit choreiform movements, especially of the right arm and leg, which later involved the cervical and facial muscles, and ultimately the left side. These movements finally became so severe that the patient could not lie down; alimentation was with difficulty secured, and her speech also suffered. There was marked evidence of hallucinations of sight, and she spent much of her time before an open window in order to get relief from an annoying sense of heat. Just before her entrance to the hospital there was loss of sphincteric control. On entrance the choreic movements were found to be general, but more marked on the right side. Speech was unintelligible, and there was much complaint of headache. Examination of the internal organs was negative, except for a slight increase in the transverse diameter of the heart and impurity of the first sound at the apex; the urine was free from sugar and albumin. Temperature, 38.3° C. on entrance, gradually rising to over 40° C. In spite of active treatment with bromide, chloral, and strophanthus, the condition of the patient grew progressively worse, and on the fourth day the legs seemed to be in a condition of flaccid paralysis. On the seventh day, during the period of maximum temperature a puncture was made and a few cubic centimeters of a perfectly clear, thin fluid obtained. Death occurred during the evening of this day, after a short period of coma. Cultures from the fluid obtained by the lumbar puncture were made in various media, some of which were injected subcutaneously into white mice; two rabbits also received small doses subdurally. The necropsy was made two days after death, the body having been carefully preserved on ice. Nothing microscopically abnormal was detected in brain or cord. In both thoracic cavities were fibrous pleuritic adhesions, and hypostatic processes in the base of both lungs. The heart was of normal dimensions, but showed a typical verrucous endocarditis with slight vegetations surrounding the mitral orifice, the other orifices and valves being free. The liver showed incipient fatty degeneration; the spleen parenchyma was soft and of the color of wine dregs. The kidneys were normal in volume, and the capsule not adherent. Digestive tract normal. Examination of the central nervous system, peripheral nerves, liver, spleen, and endocardium showed no micro-organisms. No hemorrhages were noted in the meninges, but the vessels of the pia were markedly hyperemic. In the frontal region of the brain marked changes were found in the Nissl substance of the cellular elements, the part coloring with thionin being reduced to several small granules, which were either scattered throughout the cell-body or gathered together at the periphery, while certain cells had entirely lost their chromatic substance, the protoplasm appearing coarsely granular. Many of the cells themselves, notably the large and medium-sized pyramidal, now so swollen as to lose their pyramidal form and had become bottle-shaped; and in certain of them there was peripheral dislocation of the nuclei. In sections colored with picrocarmine the cellular protoplasm stained but faintly throughout, giving rise in places to an appearance of vacuolation. No hemorrhages were seen, but the vessels were very turgid. By Golgi many elements were seen which showed varicose enlargements of their protoplasmic prolongations. In the psychomotor zone the same changes were found as above, but less intense. The gray matter of the tempero-sphenoidal lobe appeared (on section) as if riddled by minute holes, and these vacuoles seemed to have their walls made up of thickened interstitial tissue; they were not in the neighborhood of vessels. The cellular elements showed the same marked changes as in the frontal region, and hyperemia was also marked. In the occipital lobe the same condition existed, but to a less marked degree. The cerebellum and bulb showed no very decided variations from the normal. The cervical cord presented nothing but slight changes in the amount and arrangement of the chromatic substance of the anterior and posterior horns and a granulation of the protoplasm, and the same condition, though less intense, could be traced down through the dorsal lumbar regions. In the spinal ganglia marked variations were found in the disposition of the chromatic substance of the various cellular elements, even in the same section. In certain cells this substance was found to be entirely normal, in others somewhat diminished, in others still it appeared as a very fine powder, and in certain ones it seemed to have entirely disappeared, the cell staining homogeneously. Pigment in abundance was found in the elements of the entire nervous system. In the cord there was intense hyperemia of all the vessels, even to the most minute; the perivascular lymph spaces were not visible.

The authors conclude their article with a review of the literature on the pathology of chorea and the establishment of an hypothesis as to the genesis of this disease. J. W. Courtney.

CLINICAL NEUROLOGY.

252. Beitrag zur chronischen anklylosirenden Entzündung der Wirbelsäule und der Hüftgelenke (Contribution to the Chronic Ankylosing Inflammation of the Vertebral Column and the Hip-Joints). Valentini (Deutsche Zeitschrift für Nervenheilkunde, Vol. 15, Nos. 3 and 4, p. 239).

Valentini reports two cases of spondylose rhizomélique, in one of which, contrary to the usual rule, some of the small joints were involved. An important distinction between this disease and chronic articular rheumatism, or arthritis deformans, is, that ankylosis occurs in every case of spondylose rhizomélique, and the rigidity in chronic articular rheumatism is scarcely ever complete, and is due to pain and swelling of the capsule of the joint. The characteristic features of spondylose rhizomélique, according to Valentini, are found in the ankylosis of the affected joints, in the beginning of the disease in the vertebral column, in the secondary involvement of hip and knee joint, in the almost invariable escape of the small joints, and in ankylosis of the small joints when they are attacked. The nervous system remains normal, and in this spondylose rhizomélique differs from v. Bechterew's rigidity of the vertebral column. Valentini distinguishes four articular diseases having resemblances to one another, viz.. chronic articular rheumatism, arthritis deformans, spondylose rhizomélique, and the rigidity of the vertebral column with intercostal neuralgia (v. Bechterew). Spiller.

253. Chirurgische Eingriffe bei Hysterie (Surgical Measures in Hysteria). M. Sander (Deutsche med. Wochenschrift, Sept. 7, 1899, p. 588).

Sander reports two cases of hysteria which simulated disease of the intestinal tract, and in one case operation was performed twice; in the other, four times within a year. The first patient presented more the symptoms of intestinal obstruction; the second more those of perforation peritonitis. The ileocecal region seemed to be especially involved. The chief sign in the first case was meteorismus, occurring frequently with pain. This was first seen after a hysterical attack, and the diagnosis of hysteria was at once made. Variation in the frequency of the pulse, and later vomiting, fever, and a painful resistance in the ileocecal region were observed, and the diagnosis became doubtful. The vomiting was regarded as an undoubtedly hysterical sign; the increase in temperature was either artificially produced or was the result of constipation, and the latter seemed more probable, as the temperature did not go much above 38 degrees C., and usually fell with action of the bowels. The pain on pressure in the ileocecal region was probably in a hyperesthetic zone. The operations revealed no organic disease.